



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/544,297	08/03/2005	Christopher James Lyddon	05-629	8152
20306 7590 11/17/2009 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606				
EXAMINER				
ADDIE, RAYMOND W				
ART UNIT		PAPER NUMBER		
3671				
MAIL DATE		DELIVERY MODE		
11/17/2009		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/544,297

**Applicant(s)**

LYDDON ET AL.

**Examiner**

Raymond W. Addie

**Art Unit**

3671

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-17 and 22-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-17, 22-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-8, 11-17, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins US 6,206,608 B1 in view of Horton et al. US 6,409,420 B1.

Blevins discloses a vehicle arresting device (10) comprising a net, having loops (12) oriented with a longer dimension in the fore and aft direction, than in the transverse direction, See Fig. 1; Col. 2, Ins. 34-50.

Said net being intended to be used lying flat on the ground, in the path of a vehicle.

Wherein, one or more rows of pyramidally-barbed spikes (30) are attached to a leading portion of said net. Such that when the front tires of a vehicle run over said leading portion, one or more spikes become embedded in each said tire, the net becomes wrapped around the front wheels of the vehicle, and the portion of the net between those wheels of the vehicle is pulled tight under the vehicle, thereby preventing further rotation of the wheels.

What Blevins does not disclose is the use of a flexible or stretchable net.

However, Horton et al. teaches it is known to make spiked vehicle arresting nets (20) from kevlar or other suitable materials, which are light weight and easily movable

between sites. The Kevlar or similar cables (26, 28) of the net (20), being capable of substantial elongation, under the forces of contact from a vehicle. Horton et al, further teaches the advantage of providing a tip (59) having an undercut, hooked portion (60), to adhere the spike (52) to the vehicle tire. The spike (52) comprising a base portion (58) from which the spike can be stood-up. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the spiked vehicle arresting device of Blevins, from a kevlar or similar material net, as taught by Horton et al., in order to make the barrier lightweight. See Col. 3, Ins. 3-30.

With respect to claims 6-8, 11-17, 22 Blevins discloses a plurality of elongate elements (18) of flexible material, at spaced locations and attached to the net at its opposite side edges, for receiving a bar (5). Wherein one or more of said elongate elements (18) are threaded through loops of the net (10). Although Blevins does not explicitly recite the use of hook and loop material, Blevins does disclose "bar 5 and the end of the chain is connected to another section of chain by a chain link 18...any method of connecting the chain to the bar can be used. It is only necessary that the connection be strong enough to withstand the impact". Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide elongate members of flexible material, to connect a bar or the like, as taught by both Blevins and Horton, in order to stop the vehicle quickly. See Blevins Col. 3, Ins. 4-40.

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins '608 in view of Horton et al. '420 as applied to claim 1 above, and further in view of Marphetia. # 6,312,189 B1.

Blevins in view of Horton et al., discloses essentially all that is claimed, with respect to claim 1 above, but does not disclose the use pyramid shaped tire puncturing spikes. However, Marphetia teaches a unique tire deflating spike having a generally pyramid barb, having a plurality of flat triangular side faces, separated by a frustoconical side faces, wherein the barbs are undercut at their bases (11). The barb forming an air passage (18, 13) to maximize deflation rate of the tire thus punctured. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the vehicle arresting device of Blevins in view of Horton et al., with pyramid shaped barbs, as taught by Marphetia, in order to facilitate deflation of the vehicle tire(s). See Marphetia Cols. 3-4.

3. Claims 10, 23-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins '608 in view of Horton et al. '420 as applied to claim 1 above, and further in view of Cudmore et al. US 4,596,731.

Blevins in view of Horton et al. disclose essentially all that is claimed, to include providing the spikes with a base such that said spike can be upwardly directed and positioning the tire spikes at the junctions (36, 38) of the cables (26, 28) forming the net

(22). But do not disclose the step of penetrating the net with said spike such that the material of the net encircles the shaft of the spike. However, Cudmore et al. teaches it is known to releasably attach conical spikes (31-34) at the intersections of grid or mesh (15), such that the conical spikes (31-34) penetrate through an aperture (29) located at the junction of said grid (15). Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the method and device of Blevins in view of Horton et al., with the step of penetrating the junction points of the net with the spike members, as taught by Cudmore et al., in order to quickly replace used or damaged tire spikes. See Col. 4, ln. 20-col. 5, ln. 11.

4. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins '608 in view of Horton et al. '420 and Cudmore et al. US 4,596,731 as applied to claim 29 above, and further in view of Uotila US 5,310,277 or Ben US b,322,285 B1.

Blevins in view of Horton and Cudmore disclose essentially all that is claimed, except for the obvious if not inherent result of the vehicle capture net wrapping around the axle of the vehicle, as the tire spikes penetrate the tires and ultimately immobilize the wheels, thus stopping the vehicle. However, both Uotila and Ben teach it is known and predictable, that spike-based vehicle-capture devices, having elongate shapes, spread across a roadway will tend to wrap around the axle and immobilize the wheels. See Ben Figs. 2, 7; col. 4; Uotila Col. 8, ln. 60-Col. 9, ln. 5.

5. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blevins '608 in view of Horton et al. '420 as applied to claim 1 above, and further in view of Uotila US 5,310,277.

Blevins in view of Horton et al. disclose essentially all that is claimed, to include as a net having rectangular shaped loops, but do not disclose the use of diamond shaped loops. However, Uotila teaches it is known to use vehicle capture nets, having diamond shaped loops (10), see Figs. 8-10; Col. 7, ln. 55-Col. 9, ln. 5. The mesh (10) of the elongated net (1) "will become adherent to the wheel and, together with the wheel, wrap themselves around the axle of the wheel...it is impossible for the car to get free from the net any more". Therefore, it would have been obvious to one of ordinary skill in the art, to provide the vehicle capture net of Blevins in view of Horton with diamond shaped mesh, as taught by Uotila, in order to facilitate immobilizing the vehicle.

#### ***Allowable Subject Matter***

6. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. Applicant's arguments filed 7/22/2009 have been fully considered but they are not persuasive.

Applicant argues against the references to Blevins and Horton, alleging "the loops of the net are (not) oriented with a longer dimension in the fore and aft direction".

However, Figs. 1 & 2 clearly show rectangular loops defined by chains (10, 11).

The longer dimension of the loops being parallel to the handle bar (5).

Claim 1 recites "the loops of said net being oriented with a longer dimension in the fore and aft direction...when laid flat on the ground in the path of the vehicle to be arrested".

Which does not limit how the net is laid across or along the path of the vehicle. Nor would such a distinction appear novel, or patentably distinguishing.

Although Blevins illustrates the net being laid along the path of the vehicle, illustrations in a reference are not limiting but exemplary. Further, it would be well within the skill of one in the art, to orient a tire-puncturing, vehicle capture net, across a roadway, to maximize the likely-hood a target vehicle will cross the net, and not straddle a net placed along the travel lanes of the roadway.

Therefore the argument is not persuasive and the rejection is maintained.

Applicant the argues it is not obvious the net of Blevins in view if Horton would "become(s) wrapped around the front wheels of the vehicle...preventing rotation of the wheels".

However, such is known in the art, and would be expected to occur when the net is placed across the roadway rather than along the roadway. Ben '285 and Uotila '277 were made of reference with the 1st action mailed 1/30/2007 and cited above.



Applicant then argues the reference to Cudmore is non-analogous art, because the art is not from the same field of endeavor...the prior art is not pertinent to the particular problem faced by the inventor.

However, the Examiner does not concur. It is noted, Claim 29 only requires a flexible substrate, and is not limited to a net.

Cudmore discloses a traction grid for use in walkways, pathways and like having spikes (34) disposed at the junctures of the loops in grid (15), to provide a friction grip to surfaces it contacts. Whether, the grid is used to form walking surface secured to the ground, or a vehicle capture net for deflating tires and immobilizing the front wheels, does not appear relevant to the placement of the spikes on the net. Rather, it appears quite obvious, if one is to secure a spike to a grid or net, to pass the spike through the thickest, strongest points of the grid or net, at the junctures of the loops that form the grid. Therefore, the arguments are not persuasive and the rejection is maintained.

With respect to Applicant's use of secondary evidence, and commercial success.

MPEP 716.01(d) and 716.03 directs final determination of patentability with respect to evidence supporting patentability and evidence supporting prima facie case.

Since, the prior art all have structural and functional features similar to the claimed invention, the invention as claimed, appears to be an obvious combination of features, a vehicle capture net and tire-deflating spikes, for use in immobilizing a vehicle in the

shortest amount of time and distance while minimizing injury and damage to the targeted vehicle. See *in re C.f. Ex parte Remark*, 15 USPQ2d 1498, 1503 (Bd. Pat. App. & Int. 1990)

Further, the sales brochure alleged by Applicant's Rep. does not constitute a proper filing under 37 CFR 1.132 and has not been considered because it refer(s) only to the system described in the above referenced application and not to the individual claims of the application. Thus, there is no showing that the objective evidence of nonobviousness is commensurate in scope with the claims. See MPEP § 716.

### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 571 272-6986. The examiner can normally be reached on 7am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 571 272-6998. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Raymond W. Addie/  
Primary Examiner, Art Unit 3671

11/10/2009